Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for the production of a protein micro-array formed of discrete analyte-specific regions present on a solid support, each discrete region containing a selected capture protein, wherein ~~the~~ activity of the capture protein is maintained under dry conditions, said method comprising

a) contacting a C_5 to C_7 polyol with a capture protein contained in a spotting solution or being present on an array, wherein said polyol is between 1 and 5% of the spotting solution, and wherein the polyol is a linear molecule selected from the group consisting of mannitol, maltitol, and sorbitol.

b) depositing the spotting solution on one of the discrete analyte-specific regions of the surface of a nonporous solid support resulting in a covalent binding of the capture proteins to the support, wherein the surface of the nonporous solid support comprises a reactive group capable of reacting with an amino group in the capture protein, and wherein the covalent binding occurs between an amino group in the capture protein and the reactive group.

c) allowing the spotted solution to dry on the support and storing the micro-array between 0 and 8°C or between 15 and 30°C, wherein all said captured proteins have at least 70% of their activity after 6 months of storage.

Claims 2–3 (canceled).

Claim 4 (previously presented): The method of claim 1, wherein the polyol is a D-enantiomer.

Claim 5 (previously presented): The method of claim 1, wherein the polyol is a L-enantiomer.

Claim 6 (canceled).

Claim 7 (previously presented): The method of claim 1, wherein the discrete regions in the microarray contain distinct capture proteins, and wherein steps b) and c) are repeated until the microarray has at least 4 discrete analyte-specific regions of capture proteins per cm^2 of solid support.

Claim 8 (previously presented): The method of claim 1, wherein the proteins deposited on the surface are antigens, antibodies, receptors, ligands, or enzymes.

Claim 9 (previously presented): The method of claim 1 further comprising identifying and/or quantifying proteins selected from antigens, antibodies, receptors, ligands or enzymes.

Claims 10-12 (cancelled).

Claim 13 (currently amended): The method of claims [[11]] 1, wherein the micro-array is stored under air conditions.

Claim 14 (currently amended): The method of claim [[11]] 1, wherein the micro-array is stored under an atmosphere of inert gas.

Claim 15 (currently amended): The method of claim [[11]] 1, wherein the micro-array is stored under reduced pressure or under partial vacuum.

Claim 16 (canceled).

Claim 17 (previously presented): The method of claim 1, wherein all said capture proteins have at least 70% of their activity after 12 months of storage.

Claim 18 (previously presented): The method of claim 1, wherein the spotting solution containing the polyol molecule is an aqueous solution which also contains an anti-bacterial molecule.

Claim 19 (previously presented): A kit for the detection, identification, and/or quantification, of target proteins present in a biological sample or test solution, said kit comprising a protein micro-array as obtained by the method of claim 1.

Claim 20 (previously presented): The method of claim 18, wherein the aqueous solution containing the polyol molecule comprises between 0.001 and 0.5% of azide or between 1 and 100 mM of borate.

Claim 21 (currently amended): A method for stabilizing the tertiary structure of a capture protein of a protein micro-array under dry conditions, said method comprising

a) contacting a C_5 to C_7 polyol with a capture protein contained in a spotting solution or being present on an array, wherein said polyol is between 1.0 and 5.0% of the spotting solution, and wherein the polyol is a linear molecule and is selected from the group consisting of mannitol, maltitol, and sorbitol.

b) depositing the spotting solution on a nonporous solid support resulting in covalent binding of the capture protein to the support, wherein the surface of the nonporous solid support comprises a reactive group capable of reacting with an amino group in the capture protein, and wherein the covalent binding occurs between an amino group in the capture protein and the reactive group.

c) allowing the spotted solution to dry on the support and storing the micro-array between 0 and 8°C or between 15 and 30°C, wherein all said captured proteins have at least 70% of their activity after 6 months of storage.

Claim 22 (new): The method of claim 1, wherein the linear polyol is linked to other molecules.